

Statement on Climate Change and Development in Africa

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April 15, 2010

House Committee on Foreign Affairs, Subcommittee on Africa and Global Health

Chairman Payne, Ranking Member Smith, and Members of the Committee: Thank you for the opportunity to appear before you today to discuss the current and prospective impacts of climate change in Madagascar and other African countries. I come here today on behalf of the Madagascar Foundation for Protected Areas and Biodiversity and as former Ambassador to the United States from Madagascar. I would like to note that the examples I highlight in my testimony from Madagascar should be taken as a microcosm of the larger issues in Africa.

In Madagascar we are greatly concerned by climate change and believe that we are already living with its impacts. Average surface temperature of the African continent has increased by about 0.5°C over the last century (Hulme *et al.* 2001) and climate change models suggest that Madagascar as well as the whole of Southern Africa are going to be among the most affected regions on the planet (IPCC, 2007). In Madagascar, over the last decade, we have experienced severe droughts in the south of the country and intense cyclones in the north and east. These patterns are consistent with projected changes in rainfall across Africa that suggest that already wet areas will have higher rainfall while already dry areas will become even drier. Studies in Madagascar, and throughout Africa, show that rural communities are experiencing local changes in climate that are shortening growing seasons (Thornton *et al.*, 2006), which impact crop yields. Although the causes of these changes are often poorly understood by these communities, they are already forced to adapt to the impacts of these changes. For people in poverty and simply trying to survive on a daily basis, even small climatic changes that impact a harvest can be catastrophic. Adaptation responses that improve the ability of the rural poor to cope with events for which they cannot plan are clearly going to be needed to create social and economic resilience to climate change. For Madagascar, this will require a strong focus

on improving household level food security by facilitating the adoption of improved, appropriate agricultural techniques and sometimes even new crops or crop varieties that are better suited to new or more variable climatic conditions. In the dry south of Madagascar, USAID programs are already working to introduce drought resistant crops. These types of examples show great promise, but the reality is that decision-makers do not yet have the tools to precisely predict the changes that will occur, and planning around this uncertainty is difficult.

Building resilience to climate change impacts will be a fundamental element of addressing rural development in African Nations. We need to learn from past agricultural project failures, and go beyond cookie-cutter solutions. Rural communities have a better understanding of local challenges and resources that are unique to their region, and when given the right resources, they are often the best placed to develop successful solutions. I believe that much of the adaptation responses that we need for rural communities can be achieved through the provision of resources to allow for flexible mechanisms, such as small grants, microcredit, training, information or access to good quality crops. Through a participatory process that includes communities and government we can better address climate challenges that are hard to plan for, and address key development needs of these communities.

Healthy ecosystems and biodiversity underpin a community's ability to adapt to climate change. Human well-being, functioning ecosystems and climate change are intimately interlinked. Protecting forests and other natural ecosystems is essential to protect the free services that nature provides to mankind. Conserving biodiversity moderates the impacts of climate change on human communities by maintaining those ecosystem functions and services. Natural ecosystems provide many of the basic materials of life for rural, poor and vulnerable communities in Africa and Madagascar, including freshwater, food and renewable natural resources that often provide incomes. Large intact natural ecosystems stabilize local climate conditions, play a key role in the nutrient cycles that are the basis of food production systems and store large stocks of carbon. In Madagascar, we recently mapped the most important sites for the provision of major ecosystem services – carbon

storage, freshwater provision and sources of rivers feeding into important agricultural lands – and found that most of these important sites for ecosystem services are also the most important areas for biodiversity. Ecosystem services, their health and the biodiversity that maintains them, are essential for human well-being, and critical for the sustained long-term development needs of rural communities in Africa in the face of climate change.

Understanding climate impacts and adaptive strategies, engaging communities, and valuing ecosystem services will be critical for tackling climate change in rural Africa. Good progress has been made over the last few years under the UN Framework Convention on Climate Change on developing REDD+, the Reduction of Emissions from Deforestation and Degradation, as a mechanism for mitigating carbon dioxide emissions. The Copenhagen Accord, which the US secured as the most important outcome in Copenhagen, explicitly recognizes that reducing the loss of tropical forests is critical if we are to reduce carbon dioxide emissions. Slowing forest loss is also one of the cheapest and easiest issues to address to reduce emissions immediately. Despite the challenges that deforestation poses, conservation and natural resource management programs have achieved notable success and developed most of the tools needed to halt deforestation. For example, in Madagascar the actions of the National Environment Program, of which the US government has been a key supporter, have managed to reduce the national deforestation rate from 0.83% per year to 0.53% over a fifteen year period. This translates to a reduction of national carbon dioxide emissions of over 10 million tons per year by comparison to 1990 levels. Funding for REDD+ would provide the boost that we need to allow us to scale up our localized successes to the national scale. However there is an added importance to REDD+ in that it is not just a climate change mitigation measure but also an essential adaptation strategy since it leads to the maintenance of ecosystem services.

In Copenhagen, important commitments were made to rapidly move forward with implementing REDD+, most notably \$3.5 billion dollars in pledges, including \$1 billion from the US, for immediate action up until 2012. It is vital that these pledges are acted

upon urgently and that the money is used in part for better planning and the preparation of national strategies for REDD as well as monitoring and verification of carbon dioxide emissions. Equally important is that some of those funds be used for immediate action to curb deforestation now. We already have effective approaches to reduce deforestation; what we have lacked in Madagascar in the past is adequate funding to implement them on the scale required. It is key that the US strengthen their past and current investments with a predictable stream of long-term funding, as was proposed in the House-passed Climate and Energy bill. I would also urge that a variety of approaches be used to disburse funds. International mechanisms for disbursing funds through the World Bank and GEF are already in place and could be used relatively quickly to scale up efforts to reduce deforestation and protect essential ecosystem services. Multilateral and bilateral funding will be critical to African nations implementing mitigation and adaptation activities. Existing bilateral efforts show that success can be achieved. In Madagascar, the US, through USAID, has played a leadership role in supporting efforts to reduce deforestation and protect the environment. Since 1990, USAID has invested \$120 million in well-targeted environment and development activities that have demonstrably reduced deforestation while at the same time supported the sustainable livelihoods of hundreds of thousands of poor rural Malagasy people. The same is true throughout Africa. The lessons, experience and human capacity that have resulted from such programs can and should be immediately put to work to combat greenhouse gas emissions from the destruction of natural ecosystems. Furthermore, these solutions must harness nature's ability to provide such solutions to how vulnerable communities deal with the impacts of climate change and their development needs. I am pleased the proposed U.S. budget recognizes the urgency for immediate climate change funding for developing countries, such as Madagascar. I do hope that the U.S. Congress will maintain this level of funding for climate change while protecting existing international funding needed for other critical areas, such as development and conservation.

Chairman and Honorable Members of the Committee, I thank you for this opportunity to submit my statement.

References

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